

Application No. 10/810,349

Filed: March 26, 2004

TC Art Unit: 3721

Confirmation No.: 8227

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An apparatus for loading containers with bags, ~~such as for instance bags or netting packages of fruit or bags of potatoes and other sensitive products,~~ wherein the apparatus is provided with

a feed conveyor assembly; and

a loading unit, wherein the apparatus is provided with

a control designed for, ~~each time,~~ forming a layer of bags in the loading unit, ~~which layer has the layer having~~ dimensions substantially corresponding to ~~the bottom dimensions~~ at least one bottom dimension of a container to be filled; ~~and wherein~~

the loading unit is provided with a holder which is movable up and down, ~~having such outer dimensions that it is the holder sized to be~~ substantially fittingly receivable in a container to be loaded; ~~and wherein~~

the control is designed such that, ~~each time,~~ the loading unit places ~~a formed~~ the layer by moving the holder down into said container in the container to be filled.

2. (Currently amended). An apparatus according to claim 1, wherein the feed conveyor assembly comprises ~~two rotating systems~~ a first rotating system and a second rotating system arranged one behind the other, wherein each of the first rotating system and the second rotating system comprises two parallel running conveyor belts which are drivable at different

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speeds in order to rotate the bags in a plane parallel to said running conveyor belts.

3. (Currently amended) An apparatus according to claim 2, wherein the control is designed to rotate a bag through ~~an angle~~ a first angle of 45 degrees with respect to an orientation of the bag in the layer on the first rotating system and to rotate it through an additional angle of 45 degrees with respect to the first angle of 45 degrees on the second rotating system, wherein the control is further designed to already provide the first rotating system, during ~~the processing~~ a processing of a preceding bag on the second rotating system, with ~~control~~ signals for ~~processing~~ handling a following bag on the first rotating system.

4. (Currently amended) An apparatus according to claim 1, wherein ~~one of the conveyors in~~ the feed conveyor assembly further includes a plurality of conveyors ~~is arranged~~ arranged so as to be movable up and down by at least one end, so that successive bags can be placed on top of one another in an overlapping manner.

5. (Currently amended) An apparatus according to claim 1, wherein the feed conveyor assembly is provided with a stop ~~again~~ against which the bags butt after the bags have been conveyed over the feed conveyor assembly in a first conveying direction, wherein, viewed in the first conveying direction, upstream of the stop, the apparatus includes a transfer device ~~has been arranged by means of which~~ capable of placing the ~~a number of~~

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bags accumulated against the stop ~~are placed~~ onto a further conveying path of the feed conveyor assembly, wherein the said further conveying path has a second conveying direction extending substantially perpendicular to the first conveying direction.

6. (Currently amended) An apparatus according to claim 5, wherein the further conveying path comprises a collecting belt, having a first feed end and a first discharge end, and a retracting belt, wherein the retracting belt is movable as a whole in the second conveying direction, such that a discharge end thereof can be introduced as a whole into the loading unit.

7. (Currently amended) An apparatus according to claim 6, wherein, ~~on both sides~~ at each of the first feed end and the first discharge end of the collecting belt, a ~~folding~~ side plate is ~~arranged~~ included, ~~which are each~~ the side plate being pivotable from a horizontal position with respect to the collecting belt into a vertical position with respect to the collecting belt.

8. (Currently amended) An apparatus according to claim 6, wherein a discharge end of the collecting belt is arranged so as to be movable up and down, so that the bags ~~bags~~ ~~can be placed~~ ~~on top of one another~~ stacked in an overlapping manner in the second conveying direction as well.

9. (Canceled)

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10. (Currently amended) An apparatus according to ~~elaim~~claim 1, wherein the holder is provided with an open side via which the holder is loadable from ~~the further~~ a further conveying path, wherein ~~the bottom~~ a bottom of the holder is formed by a flexible curtain which can be pulled away from the bottom.

11. (Currently amended) An apparatus according to claim 10, wherein the flexible curtain comprises two curtain parts which are movable from a closed position from ~~the middle~~ a middle of the bottom of the holder away from each other for removing the bottom of the holder, such that a layer of bags can be released from the middle of the bottom of holder.

12. (Currently amended) An apparatus according to ~~elaim~~claim 1, wherein the holder is provided with a sensor designed for observing a certain distance from ~~the bottom~~ a bottom of the holder to ~~the bottom~~ a bottom of the container or a top side of bags already present in ~~this container~~ the container.

13. (Currently amended) An apparatus according to claim 12, wherein the sensor is a mechanical sensor, ~~such as for instance~~ a proximity switch.

14. (Currently amended) An apparatus according to ~~elaim~~claim 1, wherein, at least during a downward movement, the holder is partly carried by at least one pressure-controlled air cylinder and is partly carried by a drive by means of which ~~the vertical~~ a vertical position of the holder is controllable.

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15. (Previously presented) An apparatus according to claim 1, wherein, below the loading unit, a conveying system for containers extends.

16. (Withdrawn) A method for loading a container with bags, wherein the bags are placed from a feed conveyor assembly onto a bottom of a holder of a loading unit, wherein, subsequently, when the whole bottom of the holder of the loading unit has been filled with bags, this holder is lowered into a container to be filled and the bottom is released when the bottom of the holder is just above the bottom of the container to be filled or a layer of bags present in this container.

17. (Withdrawn) A method according to claim 16, wherein the release of the bottom of the holder takes place in that this bottom is manufactured from a flexible curtain which can be pulled away for the purpose of releasing the bottom.

18. (Withdrawn) A method according to claim 16, wherein, in the feed conveyor assembly, the bags are oriented by means of two rotating systems arranged one behind the other which each comprise two parallel running conveyor belts drivable at different speeds, wherein the first rotating system rotates a bag through 45 degrees and the second rotating system rotates the bag, by then rotated through 45 degrees, again through a further 45 degrees.

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19. (Currently amended) An apparatus according to claim 4, wherein:

the feed conveyor assembly is provided with a stop against which the bags butt after the bags have been conveyed over the feed conveyor assembly in a first direction, wherein, viewed in ~~the first~~ a first conveying direction, upstream of the stop, ~~the apparatus includes~~ a transfer device ~~has been arranged by means of which~~ capable of placing the ~~a number of~~ bags accumulated against the stop ~~are placed~~ onto a further conveying path of the feed conveyor assembly, wherein the said further conveying path has a second conveying direction extending substantially perpendicular to the first conveying direction;

the further conveying path comprises a collecting belt and a retracting belt, wherein the retracting belt is movable as a whole in the second conveying direction, such that a discharge end thereof can be introduced as a whole into the loading unit;

~~on both sides~~ at each of the first feed end and the first discharge end of the collecting belt, ~~a folding side plate is arranged included, which are each~~ the side plate being pivotable from a horizontal position with respect to the collecting belt into a vertical position with respect to the collecting belt.

20. (Currently amended) An apparatus according to claim 7, wherein a discharge end of the collecting belt is arranged so as to be movable up and down, so that the bags ~~bags~~ ~~can be placed~~ ~~on top of one another~~ stacked in an overlapping manner in the second conveying direction as well.

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21. (Currently amended) An apparatus according to claim 19, wherein:

the loading unit is provided with a holder which is movable up and down, ~~having such outer dimensions that it is the holder sized to be~~ substantially fittingly receivable in a container to be loaded;

the holder is provided with an open side via which the holder is loadable from the further conveying path, wherein the ~~bottom~~ a bottom of the holder is formed by a flexible curtain which can be pulled away from the bottom;

the flexible curtain comprises two curtain parts which are movable from a closed position from ~~the middle~~ a middle of the bottom of the holder away from each other for removing the bottom of the holder, such that a layer of bags can be released from the middle of the bottom of holder;

the holder is provided with a sensor designed for observing a certain distance from the bottom of the holder to ~~the bottom~~ a bottom of the container or a top side of bags already present in ~~this container~~ the container;

the sensor is a mechanical sensor, ~~such as for instance a proximity switch~~;

at least during a downward movement, the holder is partly carried by at least one pressure-controlled air cylinder and is partly carried by a drive by means of which ~~the vertical~~ a vertical position of the holder is controllable;

below the loading unit, a conveying system for containers extends.

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22. (Currently amended, 1>5>6>7>20) An apparatus according to claim 20, wherein:

the loading unit is provided with a holder which is movable up and down, ~~having such outer dimensions that it is the holder sized to be~~ substantially fittingly receivable in a container to be loaded;

the holder is provided with an open side via which the holder is loadable from the further conveying path, wherein ~~the bottom~~ a bottom of the holder is formed by a flexible curtain which can be pulled away from the bottom;

the flexible curtain comprises two curtain parts which are movable from a closed position from ~~the middle~~ a middle of the bottom of the holder away from each other for removing the bottom of the holder, such that a layer of bags can be released from the middle of the bottom of holder;

the holder is provided with a sensor designed for observing a certain distance from the bottom of the holder to ~~the bottom~~ a bottom of the container or a top side of bags already present in ~~this container~~ the container;

the sensor is a mechanical sensor, ~~such as for instance a proximity switch~~;

at least during a downward movement, the holder is partly carried by at least one pressure-controlled air cylinder and is partly carried by a drive by means of which ~~the vertical~~ a vertical position of the holder is controllable; and

below the loading unit, a conveying system for containers extends.

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23. (Withdrawn) A method according to claim 17, wherein, in the feed conveyor assembly, the bags are oriented by means of two rotating systems arranged one behind the other which each comprise two parallel running conveyor belts drivable at different speeds, wherein the first rotating system rotates a bag through 45 degrees and the second rotating system rotates the bag, by then rotated through 45 degrees, again through a further 45 degrees.

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